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Assignment #4

Traveling Sales-Man Problem

Using nearest neighbor algorithm

① Start from city 'D' we will look for the closest neighbor which happens to be 'B' with a distance of 212

Arrived at 'B' & marked as visited

D → B

Total Distance = 207 + 212 = 419

② From 'B' we will move towards the closest unvisited neighbor which is 'C' with a distance of 200. Arrived at 'C' and marked as visited

D → B → C

Total Distance = 207 + 212 + 200 = 619

③ From 'C' the closest unvisited neighbor is 'A' with a distance of [redacted] 230

Arrived at 'A' and marked as visited

D → B → C → [redacted]

Dist = 207 + 212 + 200 + 230 + [redacted] = [redacted] 849

④ From 'E' the closest unvisited neighbor as 'A' with distance of 274.
Arrived at A and marked visited.

D → B → C → E → A

Total Distance = 207 + 212 + 200 + 230 + 274 = 1123

⑤ last but not least, we will move from A towards the closest unvisited neighbouring city which is 'D' with a distance of 207.
Arriving at 'D' completes the round trip.
Distance of 'D' from 'A' has already been added at the start, so it will be neglected this time

Final path for minimum dist:

D → B → C → E → A → D

Total Distance = 207 + 212 + 200 + 230 + 274
= 1123.